

AMENDMENTS TO THE CLAIMS

1-11 (Canceled).

12. (Currently Amended) A method of fabricating an optical semiconductor device, comprising:

~~the first step of~~ forming an optical semiconductor element on a semiconductor substrate;

~~the second step of~~ forming a semiconductor region having walls opposing said optical semiconductor element and essentially surrounding said optical semiconductor element; and

~~the third step of~~ forming a buried layer by vapor phase epitaxy between the walls of said semiconductor region and said optical semiconductor element,

wherein ~~in the second step~~ a distance between the wall of said semiconductor region and a side wall of said optical semiconductor element is ~~larger~~ greater in a first region than in a second region, the first region having a higher vapor phase epitaxy growth rate in a horizontal direction than the second region, in a portion in which a growth rate of the vapor phase epitaxy in a horizontal direction from the side wall of said optical semiconductor element and the wall of said semiconductor region is higher.

13. (Original) A method according to claim 12, wherein said buried layer is formed by vapor phase epitaxy using one of a chloride-based source gas and a hydride-based source gas.

14. (Currently Amended) A method according to claim 12, further comprising:
~~the steps of~~ forming trenches in a predetermined region of said semiconductor region before ~~the third step~~ forming the buried layer, said trenches being buried with said buried layer ~~in the third step~~, and

~~the step of~~ forming an electrode to be connected to said optical semiconductor element on said trenches via an insulating film.

15. (Currently Amended) A method according to claim 14, wherein said trenches are wider in a ~~portion~~ a third region in which a growth rate in a horizontal direction from side walls of said trenches is higher than in a fourth region.

Claims 16-18 (Canceled).